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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,999	12/10/2003	Masayuki Yamamoto	SUT-0231	6347

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EXAMINER

SELLS, JAMES D

ART UNIT PAPER NUMBER

1734

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/730,999

Applicant(s)

YAMAMOTO, MASAYUKI

Examiner

James Sells

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5 and 7-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5 and 7-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al (US Patent 4,925,515) in view of Dijk (US Patent 3,627,602).

Yoshimura discloses a method and apparatus for applying a protective tape on a semiconductor wafer. As shown in Figs. 1 and 4, the system comprises transfer table 4 having a vacuum suction port 62 for receiving and holding wafer 8. Application roller 21 applies protective tape 14, supplied from roll 11, onto the top surface of wafer 8 as table 4 moves the wafer 8 past roller 21.

However, Yoshimura does not disclose vibrating the tape in the manner claimed by the applicant. Regarding this difference, the applicant is directed to the reference of Dijk.

Dijk discloses a method for laminating sheets. As shown in Fig. 6, sheets or adhesive tapes 80 and 81 are fed via guide rollers (not shown) through the nip formed between roller 82 (applicant's claimed holding means) and loading element 84 (applicant's claimed applying means). Loading element 84 is actuated by an oscillating actuator (not shown) at a frequency between 0.1 and 1000 c/s (see col. 6, lines 45-50)

to bond the sheets or adhesive tapes 80 and 81 to form laminate 89 in the manner claimed by the applicant. In the embodiment shown in Figs. 4-5, Dijk employs first and second oscillators 55 and 57 to oscillate upper and lower loading elements 52 and 53 to bond sheets or adhesive tapes 50 and 51 together.

In the embodiment shown in Fig. 7, Dijk employs a loading element 104 which oscillates roller 103 while materials 106 and 107 travel through the nip of roller 103 and immobile loading element 100.

It would have been obvious to one having ordinary skill in the art to vibrate the tape, as taught by Dijk, in the method and apparatus of Yoshimura in order to achieve a better bond between the protective tape and the wafer.

Regarding claims 4-5 and 11-12, it is the examiner's position that heating means and cutting means are within the purview of one having ordinary skill in the art and would have been obvious to employ in the above described system of Yoshimura based upon physical requirements of the materials employed in manufacturing.

Regarding claims 7-9, without the disclosure of unexpected results, it is the examiner's position that the specific materials employ (i.e. strip form, label, semiconductor wafer) are well known and conventional in the art and would have been obvious to employ in the above described system of Yoshimura as a matter of design choice based upon desired properties of the materials being manufactured.

Regarding claims 13-14 and 16-17, it is the examiner's position that electromagnetic and rotating eccentric vibration generating means are both well known and conventional in the art. Therefore, it would have been obvious to one having

ordinary skill in the art to employ such electromagnetic or rotating eccentric vibration generating means in the system of Yoshimura described above in order to facilitate vibration of the materials.

Regarding claims 18-20, the applicant is reminded that the materials used (i.e. strip form, label, semiconductor wafer) are not germane to the patentability of an apparatus claim.

Regarding claims 21-22, since Yoshimura applies the protective tape to the entire surface, including the edges, of the wafers, it is the examiner's position that the combination of Yoshimura in view of Djik as described above shows applicant's claimed invention.

### ***Response to Arguments***

3. Applicant's arguments filed December 19, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as described above, it would have been obvious to one having ordinary skill in the art to vibrate the

tape, as taught by Dijk, in the method and apparatus of Yoshimura in order to achieve a better bond between the protective tape and the wafer.

***Telephone/Fax***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sells whose telephone number is (571) 272-1237. The examiner can normally be reached on Monday-Friday between 9:30 AM and 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

A handwritten signature in black ink, appearing to read 'JSK', with a horizontal line drawn underneath it.

**JAMES SELLS**  
**PRIMARY EXAMINER**  
**TECH. CENTER 1700**